

Design Memorandum No. 05-2003

TO: Engineering Offices and Divisions
Districts
Consulting Engineers

FROM: Mark Gaydos, Design Engineer

DATE: March 28, 2003

SUBJECT: PRIMARY DESIGN CRITERIA FOR NHS
SYSTEM

Design Manual Reference:

Section III-02

____ Revision
____ ° Supplemental

Introduction

This memorandum provides guidance on determining which applicable reference is to be used for design standards on the National Highway System(NHS).

Implementation

The use of this guidance is to be implemented immediately.

Guidance

The enclosed table is to be used to identify which standards apply for different types of improvements that are done to highways on the NHS system. The NHS system for North Dakota is shown on Figure I-04.01 in the Design Manual.

Questions

Any question regarding the content or implementation of this memorandum should be referred to Ronald J. Henke, Design Division, 701-328-4445.

Approved

Signed

Francis G. Ziegler, P.E. - Director, Office of Infrastructure Support

4/10/03

Date

PRIMARY DESIGN CRITERIA	NHS											
	Interstate			Rural 2 lane			Non-Interstate> 2 lane			Urban		
	Reconstruction	3R	PM	Reconstruction	3R	PM	Reconstruction	3R	PM	Reconstruction	3R	PM
*Design Speed	2	2	5	1	4	4	1	1	6	1	1	6
*Lane Width	2	5	5	1	4	4	1	1	6	1	1	6
*Shoulder Width	2	5	5	1	4	4	1	1	6	1	1	6
*Horizontal Curvature	1 & 2	5	5	1	4	4	1	1	6	1	1	6
*Vertical Curvature	1 & 2	5	5	1	4	4	1	1	6	1	1	6
*Grade	2	5	5	1	4	4	1	1	6	1	1	6
*Superelevation	1 & 2	2	5	1	4	4	1	1	6	1	1	6
*Cross Slope	1 & 2	2	5	1	4	4	1	1	6	1	1	6
*Stopping Sight Distance	1 & 2	5	5	1	4	4	1	1	6	1	1	6
*Bridge Width	1 & 2	5	5	1	4	4	1	1	6	1	1	6
*Bridge Structural Capacity	1 & 2	2	2	1	4	4	1	1	6	1	1	6
*Horizontal Clearance	1 & 2	2	2	1	4	4	1	1	6	1	1	6
*Vertical Clearance	1 & 2	2	2	1	4	4	1	1	6	1	1	6
*Traffic Barriers	3	3	6	3	4	4	3	3	6	3	3	6

1 - A Policy on Geometric Design of Highways and Streets , 2001 4th Addition

2 - A Policy of Design Standards - Interstate System

3 - NCHRP 350 Criteria (September 29, 1994 Carlson Memo, and agreed implementation schedule)

4 - 1998 RRR & PMRRR

5 - Standards When Built

6 - October 12, 1993 FHWA Carlson Memo

* The NDDOT Design Manual should be reviewed for additional guidance on all Primary Design Criteria